IN THE CLAIMS

1.   (Currently Amended) A display system for presenting a stereoscopic image to an observer, the display system comprising:

a plurality of cameras, each camera being configured to obtain a video image;

a video processor configured to receive the video images from each of the plurality of cameras and to formulate image data therefrom; and

a stereoscopic display having a left module and a right module, wherein each of the left and right modules comprises an eyepiece, a display panel, and a respective ~~and a display panel with at least one~~ aperture located ~~therebetween~~ between the eyepiece and the display panel, wherein the stereoscopic display is configured to receive the image data from the video processor and to produce ~~the~~ stereoscopic image points on the display panels as a function thereof, and wherein, for each of the left and right modules, the ~~at least one apertures are~~ aperture is configured to form a window obscuring at least a portion of the stereoscopic image from the observer.

2.   (Original) The display system of claim 1 wherein the stereoscopic display is a head-mounted display (HMD).

3.   (Currently Amended) The display system of claim 1 wherein, for each of the left and right modules, the ~~at least one~~ aperture is located substantially midway between the eyepiece and the display panel.

4.   (Original) The display system of claim 1, wherein the video image comprises a convergence point corresponding to the intersection of centerlines projecting from each of the plurality of cameras.

5.   (Original) The display system of claim 1 wherein the stereoscopic display comprises a display convergence point corresponding to the intersection of centerlines projecting from the left and right modules.

6.   (Original) The display system of claim 5 wherein the stereoscopic display comprises a focus point at a location distinct from the display convergence point.

7.   (Currently Amended) A display system for presenting a stereoscopic image to an observer, the display system comprising:

a plurality of cameras, wherein each of the plurality of cameras is configured to obtain a video image;

a video processor configured to receive the video images from each of the plurality of cameras and to formulate image data therefrom; and

a head-mounted stereoscopic display having a left module and a right module oriented toward a display convergence point, wherein each of the left and right modules comprises an eyepiece, a display panel, and a respective ~~and a display panel with at least one~~ aperture located ~~therebetween~~ between the eyepiece and the display panel, wherein the stereoscopic display is configured to produce the stereoscopic image on the display panels as a function of the image data, wherein the stereoscopic image comprises a focus point distinct from the display convergence point, and wherein, for each of the left and right modules, the ~~at least one apertures are~~ aperture is configured to form a window obscuring at least a portion of the stereoscopic image from the observer to thereby eliminate frame violations in the stereoscopic image.

8.   (Original) The display system of claim 7 wherein each of the plurality of cameras are oriented toward each other at a camera convergence angle.

9.   (Original) The display system of claim 8 wherein the left and right modules are oriented toward each other at a display convergence angle substantially equal to the camera convergence angle.

10.   (Original) The display system of claim 9 wherein the display and camera convergence angles are substantially equal to nine degrees.

11.   (Original) A method of producing a stereoscopic image of a scene on a stereoscopic display for an observer, the method comprising the steps of:

obtaining at least two video signals of the scene;

processing the at least two video signals to generate stereoscopic image data;

displaying the stereoscopic image on the stereoscopic display; and

obscuring at least a portion of the stereoscopic display from the observer with a mid-window to thereby prevent frame violations in the stereoscopic image.

12.   (Original) The method of claim 11 wherein the stereoscopic display comprises left and right modules having a display convergence point corresponding to the intersection of centerlines projecting from the left and right modules.

13.   (Original) The method of claim 12 wherein the processing step comprises generating a focus point for the stereoscopic image that is distinct from the display convergence point.

14.   (Original) The method of claim 11 wherein each of the at least two video signals is produced by one of a plurality of cameras.

15.   (Original) The method of claim 14 wherein the plurality of cameras is configured with a convergence point for the at least two video signals.

16.   (Original) The method of claim 15 wherein the convergence point is located closer to the plurality of cameras than a closest object appearing in the scene.

17.   (Currently Amended) An aerial refueling system for assisting an operator in controlling a refueling boom coupled to an aircraft, the aerial refueling system comprising:

a remote vision system having at least two cameras, each configured to provide a video image of the refueling boom;

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a video processing system is configured to receive the video images from each of the plurality of cameras and to formulate image data therefrom; and

a stereoscopic display having a left module and a right module, wherein each of the left and right modules comprises an eyepiece, a display panel, and a respective ~~and a display panel with at least one~~ aperture located ~~therebetween~~ between the eyepiece and the display panel, wherein the stereoscopic display is configured to receive the image data from the video processing system and to produce the stereoscopic image on the display panels as a function thereof, and wherein, for each of the left and right modules, the ~~at least one apertures are~~ aperture is configured to form a window obscuring at least a portion of the stereoscopic image from the operator to thereby reduce frame violations in the stereoscopic image.

18.   (Currently Amended) An aerial refueling system for assisting an operator in controlling a refueling boom providing fuel to a receiving aircraft, the aerial refueling system comprising:

a remote vision system having at least two cameras configured to provide a video image having a field of view incorporating the refueling boom and at least a portion of the receiving aircraft, wherein the at least two cameras are oriented toward a convergence point corresponding to a point where the refueling boom intersects an edge of the field of view;

a video processing system configured to receive the video image and to formulate image data therefrom; and

a head-mounted stereoscopic display having a left module and a right module oriented toward a display convergence point, wherein each of the left and right modules comprises an eyepiece, a display panel, and a respective ~~and a display panel with at least one~~ aperture located ~~therebetween~~ between the eyepiece and the display panel, wherein the stereoscopic display is configured to produce a stereoscopic image of the refueling boom and the portion of the receiving aircraft on the display panels as a function of the image data, and wherein, for each of the left and right modules, the ~~at least one apertures are~~ aperture is configured to form a window obscuring at least a portion of the stereoscopic image from the user.

19. (Original) The aerial refueling system of claim 18 wherein the stereoscopic image comprises a focus point distinct from the display convergence point.

20. (Original) The aerial refueling system of claim 17 wherein the stereoscopic display comprises a head mounted display (HMD).

21. (Currently Amended) A display for presenting a stereoscopic image to an operator, the display comprising a left module and a right module, wherein each of the left and right modules comprises an eyepiece, a display panel, and a respective ~~and a display panel with at least one~~ aperture located ~~therebetween~~ between the eyepiece and the display panel, wherein the display is configured to receive image data and to produce the stereoscopic image on the display panels as a function thereof, and wherein, for each of the left and right modules, the ~~at least one apertures are~~ aperture is configured to form a window obscuring at least a portion of the stereoscopic image from the observer.

22. (Currently Amended) A head-mounted stereoscopic display for presenting a stereoscopic image to an observer, the display comprising a left module and a right module oriented toward a display convergence point, wherein each of the left and right modules comprises an eyepiece, a display panel, and a respective ~~and a display panel with at least one~~ aperture located ~~therebetween~~ between the eyepiece and the display panel, wherein the stereoscopic display is configured to produce the stereoscopic image on the display panels, wherein the stereoscopic image comprises a focus point distinct from the display convergence point, and wherein, for each of the left and right modules, the ~~at least one apertures are~~ aperture is configured to form a window obscuring at least a portion of the stereoscopic image from the observer to thereby eliminate frame violations in the stereoscopic image.

23.   (Original) A display for presenting a stereoscopic image to an operator, the display comprising a display panel and at least one aperture located between the display panel and the operator, wherein the display is configured to produce the stereoscopic image on the display panel and wherein the at least one aperture is configured to form a window obscuring at least a portion of the display panel from the observer to thereby eliminate frame violations in the stereoscopic image.